

# Claims

1. A process for storing audio signals, in particular speech messages, comprising the following process steps:

- (a) digitalization of incoming audio signals  $s(n)$ ;
- (b) storage of the digitalized audio signals  $a(n)$  in a memory in areas with  $a(n)$  first memory size and bit rate;
- (c) monitoring of the occupancy of the memory;
- (d) determination of the current occupancy rate, in particular full occupancy of the memory;
- (e) reduction of the memory size and bit rate for the already stored audio signals  $a(n)$  to a second, smaller value as soon as a predetermined occupancy rate of the memory is reached and
- (f) occupation of the memory space released in the memory at least in part by newly incoming audio signals  $s(n)$ .

2. A process according to Claim 1, wherein additionally a reduction of the memory size and bit rate of the already stored audio signals  $a(n)$  takes place in pauses in use when no newly incoming audio signals  $s(n)$  are received.

3. A process according to Claim 1, wherein the reduction of the memory size in step (e) takes place by recoding the already stored audio signals  $a(n)$  with a lower bit rate than upon their input storage in step (b).

4. A process according to Claim 1, wherein the incoming audio signals  $s(n)$  are coded, layered hierarchically, in levels of information blocks of different importance, and that the reduction in the memory size in step (e) takes

place by successive omission of the respective lowest level or levels of the hierarchically layered information blocks.

5 5. A process according to Claim 4, wherein the layering of the different information blocks takes place in accordance with at least one predeterminable importance criterion.

10 6. A process according to Claim 5, wherein the middle frequency of a frequency band contained in the audio signal  $s(n)$  is selected as importance criterion, and that if necessary in step (e) the upper frequencies of the audio signal are omitted.

15 7. A process according to Claim 5, wherein a mean error, preferably a mean quadratic error of a parametric representation of the audio signal  $s(n)$ , in particular of a multi-stage vector quantization, is selected as importance criterion, and that if necessary in step (e) one or more higher stages of the parametric representation are disregarded.

20 8. A process according to Claim 1, wherein 100% of the memory space available in the memory is preset as the occupancy rate of the memory from which a reduction of the memory size and bit rate takes place in step (e).

25 9. A device for storing audio signals, in particular speech messages, comprising a means for digitalizing incoming audio signals  $s(n)$ , a memory means for the storage thereof, and a control device,

wherein the memory means comprises areas with a first memory size for storing the digitalized audio signals  $a(n)$ ,

30 wherein the control device comprises means for detecting an occupancy of all the areas of the memory means,

wherein when it is determined that a predetermined occupancy rate, in particular full occupancy, of the areas of the memory means is reached, the digitalization means can effect a compression of the already stored audio signals  $a(n)$  from the first memory size to a second, smaller memory size, and wherein the control device can store newly incoming audio signals  $s(n)$  in released memory space in the memory means.

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